

December 2016



## Veterinary Services Staff

**Branch Supervisor/Wildlife Veterinarian:** Dr. Mary Wood

**Laboratory Supervisor:**  
Hank Edwards

**Senior Lab Scientist:**  
Hally Killion

**Senior Lab Scientist:**  
Jessica Jennings-Gaines

**Brucellosis Lab Assistant:**  
Kylie Sinclair

**Wildlife Disease Specialist:**  
Terry Creekmore

**TWRC Manager:**  
Matt Huizenga

**Wildlife Biologist:**  
Cole Hansen

**Biologist:** Sam Lockwood



## Wildlife Health Laboratory

### Brucellosis Surveillance

Brucellosis surveillance of hunter harvested elk is starting to wind down as many of the elk seasons come to a close. Since the beginning of the season, 975 blood samples have been received, with 702 of those (72%) being suitable for testing. Positive samples this year have come from elk hunt areas 40, 49, 51, 56, 58, 59, 61, 62, 63, 64, 66, and 67 (see the following on hunt area 40 and 49 positives).

The majority of this year's brucellosis surveillance occurred in the Bighorn Mountains where we have intensively monitor harvested elk for this disease for the past four years. So far this hunting season, 607 blood samples have been received from all of the Bighorn elk herd units; from which 415 (68%) have been suitable for testing and were collected from either yearling or adult elk. See table below for elk hunt areas within the Bighorns and their corresponding sample totals to date; totals include male and females, but only adult and yearling animals (no juveniles). Elk hunt area 49 is a new brucellosis positive hunt area for 2016.

Hunt Area	Total Rec	Total Useable	Total Neg	Total Pos
33	14	8	8	0
34	49	39	39	0
35	16	9	9	0
36	16	9	9	0
37	12	10	10	0
38	112	83	83	0
39	39	32	32	0
40	54	37	36	1
41	74	53	53	0
45	84	45	45	0
47	7	6	6	0
48	33	17	17	0
49	57	39	38	1
120	40	28	28	0
<b>Total</b>	<b>607</b>	<b>415</b>	<b>413</b>	<b>2</b>

### CWD Surveillance

Surveillance for CWD in the state's deer, elk, and moose populations is also starting to wind down. So far this hunting season over 2,600 CWD samples have been submitted to the laboratory, of those 2,306 were from hunter-killed animals (101 positives) 110 from targeted animals (animals showing signs of CWD, and 19 of those were positive), and 230 from road-killed animals (5 positives). Eight new deer hunt areas have been identified in 2016: 7, 92, 110, 111, 113, 121, 128, and 145.

## The Final Fence Repair

This month has been very productive for us in Sybille canyon and we are thrilled to announce that we have begun repair on the final section of fencing that was damaged from flooding this past spring. After removing a large section of existing fence from the eastern boundary of our facility, we are now in the middle of constructing a new type of water gap that will hopefully be around long after we are gone. The past two springs have brought significant flooding at our facility and managing fencing over Sybille creek has been very challenging. This new type of water gap is being constructed out of a fifty foot I-beam and two inch channel iron, which will hopefully hold up to flooding better than the water gaps we have previously built.



*A new type of water gap fencing at our eastern border.*

## Evaluating New Management Technology

We have been working with Lotek Wireless to beta test some of their new GPS collars. Earlier this month we fitted three of our cow elk with GPS collars to help Lotek with some of the "tweaking" process for their new collars. We will be observing collar placement and wear on elk over time while Lotek does some fine tuning in the hardware and software used in the collars. This will help them improve the accuracy and durability of their collars, which will in turn help our biologists and others receive better data in future collaring projects.



*Two elk wearing test collars from Lotek.*

## Other Happenings

This was a busy month for meetings and training. We all attended flight safety training as well as a short branch meeting in Laramie. Matt and Sam attended the Regional Leadership Team meeting at the Downar bird farm. We held our facility's biannual Animal Care and Use Committee meeting and Matt attended the Wyoming Chapter of The Wildlife Society and Society for Range Management's 2016 Joint Conference in Cody.

## Wildlife Necropsy Summary

**Five diagnostic cases were finalized in November:** We also received a fox squirrel, two pronghorn, a coyote, and a mountain goat. These cases are still pending results.

Species	Date Received	County	Diagnosis
Mule Deer	9/21/2016	Washakie	CWD
Mule Deer	10/26/2016	Carbon	Adenovirus/Pneumonia
Mule Deer	11/8/2016	Natrona	Bacterial Peritonitis
Elk	11/14/2016	Albany	Bacterial Pneumonia
Pronghorn	11/8/2016	Natrona	Pleuritis

Terry Creekmore completed his service overseas and is now back! We would like sincerely thank Kylie Sinclair for doing such a great job covering Terry's duties while he was away. Kylie now switches back to her duties of brucellosis surveillance in hunter-killed elk



## Wildlife Disease of the Month—Salmonellosis and Bird Feeders



With the arrival of winter comes the season for feeding birds. Everyone who has that bird feeder in the yard needs to be aware of *Salmonella* and how to prevent mortality in the birds you're trying to help through the winter. Salmonellosis of passerines (perching birds) is the most commonly spread disease at bird feeding stations, and it's not uncommon to have mortality in multiple species due to this disease. In Wyoming, this disease is seen most often in finches of all species, crossbills, pine siskins, and house sparrows, but all species are susceptible to varying degrees.

In bird feeders, salmonellosis is caused by the bacterium, *Salmonella typhimurium*, but other *Salmonella* species can also be involved. Animals involved in an outbreak may die suddenly or be listless and weak, have ruffled feathers, and may have fecal staining around the vent. Convulsions can even occur in affected birds and prolonged disease (chronic) can lead to emaciation. But not all birds that become infected will show signs of disease; some infected birds do not become sick but shed the bacterium for many weeks, thus acting as "silent" carriers that can continue to infect new feeding stations.

Disease outbreaks may be prevented or controlled by eliminating of point sources of infection. An effective control strategy involves temporary removal of the feeder(s) and water baths as well as thorough cleanup of the immediate vicinity. To clean potentially contaminated feeders, (1) empty them and discard the feed in a secure container, (2) scrape all organic material from surfaces, (3) scrub all surfaces with soapy water, (4) rinse well, (5) disinfect (a 10% bleach solution can be used), (6) rinse well, and (7) allow to air dry. Feeders should not be put back up until at least several weeks after the outbreak has subsided. Routine husbandry for prevention of feeder-associated outbreaks is essential and includes frequent removal of wet, soiled feed and fecal material from the feeder and its vicinity. Feed should be stored in waterproof, sealed containers.

When cleaning feeders or handling birds, remember to protect yourself! Human disease due to infection with *Salmonella* is well documented. Because passerines can be inapparent *Salmonella* "carriers", anyone handling birds or maintaining bird feeders should use routine precautions to prevent transmission. In the case of feeder-associated disease outbreaks, dead birds should be discarded so as to prevent children or domestic pets from contacting them, wear latex/nitrile gloves when handling birds or feeders, and always remember to wash your hands after you have removed your gloves.



*Redpoll exhibiting signs of Salmonellosis.*